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EXAMINER	
LE, MIRANDA	

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2167	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/800,163	VIJAY DESHMUKH	
	Examiner	Art Unit	
	Miranda Le	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24 and 28-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24 and 28-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/03/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to Amendment, filed 05/07/32007.

Claims 1-24, 28-38 are pending in this application. In the Amendment, claims 25-27 have been cancelled, and claims 1, 4, 7-10, 13, 16-19, 24, 33 have been amended. This action is made Final.

2. The objection to the specification (claim objection) of the invention has been withdrawn in view of the amendment.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 01/03/2007 was filed is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless:
>
> (e) the invention was described in
>
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or
>
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 28-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Mauldin (US Patent No. 6,578,048).

Mauldin anticipated independent claim 28 by the following:

As per claim 28, Mauldin teaches a method for creating a logical tree comprising:

examining a first directory *(i.e. file 30, col. 5, lines 21-28)* from a top of a directory queue, and determining a set of children of the directory *(i.e. files 32, 33, 34, and 35, col. 5, lines 21-28) (col. 6, lines 9-61).*

assigning an ID to the first directory *(i.e. constructing a catalog of the files stored on a network, col. 2, line 28 to col. 3, line 11);*

examining the set of children and determining a first subset of files and a second subset of directories *(i.e. each of files 32-35 have a plurality of pointers to other files, col. 5, lines 21-28); and*

placing the second subset on the top of the directory queue *(col. 6, lines 9-61).*

As per claim 29, Mauldin teaches the method of claim 28, wherein the ID is a depth first search (DFS) ID *(col. 4, lines 21-42).*

As per claim 30, Mauldin teaches the method of claim 28, further comprising placing the first subset of files in a file queue *(col. 6, lines 9-61).*

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 31, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mauldin (US Patent No. 6,578,048), in view of Ferrel et al. (US Patent No. 6,199,082).

As per claim 31, Mauldin does not fairly teach a directory walking thread examining the directory queue; and a file thread examining the file queue.

However, Ferrel teaches a directory walking thread examining the directory queue; and a file thread examining the file queue *(col. 57, lines 12-30).*

It would have been obvious to one of ordinary skill of the art having the teaching of Mauldin and Ferrel at the time the invention was made to modify the system of Mauldin to include a directory walking thread examining the directory queue; and a file thread examining the file queue as taught by Ferrel.

One of ordinary skill in the art would be motivated to make this combination in order to determine whether any search objects need to be resolved for the customer selected title in view of Ferrel *(col. 59, lines 30-48)*, as doing so would give the added benefit of providing a system

that is efficient distribution, content published separately from the layout, separation of responsibilities, hardware independence, automatically placed content and personalized titles, as taught by Ferrel *(Summary).*

As per claim 32, Mauldin teaches the method of claim 31, wherein examining the file queue further comprises recording an information about a first file taken from the file queue *(col. 2, line 28 to col. 3, line 11).*

8. Claims 1, 4-10, 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sedlar et al. (US Patent No. 6,922,708), in view of Perttunen et al. (US Patent No. 6,563,521).

As to claims 1, 10, Sedlar teaches a method for creating a file information database *(i.e. Emulating other OS File System Characteristics in a Database, col. 10, line 50 to col. 11, line 7)* comprising:

scanning *(i.e. to scan the table, col. 21, lines 38-49)* a storage server *(i.e. database server 204 stores files that originate from numerous distinct OS file systems, col. 12, lines 21-37)* having a directory structure *(i.e. During the traversal of the hierarchical index, ... a child of the directory associated with the directory entry, col. 22, lines 39-47);*

collecting data regarding the directory structure *(i.e. During the traversal of the hierarchical index, ... a child of the directory associated with the directory entry, col. 22, lines 39-47);*

assigning a first identification (ID) number to a first directory *(i.e. index entry has been created for the Documents directory, col. 23, lines 1-8)* and a second ID number to a second

directory *(i.e. Word directory, col. 23, lines 9-16)* in the directory structure *(i.e. an index entry for the Document directory is added to the hierarchical index, ... the Dir_Entry_List is updated to indicate that the new Document directory is a child of the Word directory, col. 22, lines 56-64);*

writing a data structure including the first ID number, the second Id number and relation between the first directory and the second directory *(i.e. an index entry for the Document directory is added to the hierarchical index, ... the Dir_Entry_List is updated to indicate that the new Document directory is a child of the Word directory, col. 22, lines 56-64).*

Sedlar does not specifically teach a dept first search (DFS) order.

Perttunen teaches a dept first search (DFS) order *(i.e. Items related by a tree are further organized by determining a depth-first search of the tree having an optimum value associated therewith. ... Examples of an item include, but are not limited to a computer address, a computer site, a Web page, audio content, an image, computer software, an information category, an information subcategory, an information source, a logical disk for a computer, a computer directory, a computer-readable file, computer-readable data, a computer-readable message, a computer-readable description and/or image of a physical object, a computer-readable description and/or image of a purchasable item, a general category, and a general subcategory. Of particular interest are computer-readable items in a markup language such as HTML (hypertext markup language), HDML (handheld device markup language), or WML (wireless markup language). Also of interest are computer-readable messages such as those from either USENET or a Web page which provides an on-line discussion forum, col. 1, line 55 to col. 2, line 19).*

It would have been obvious to one of ordinary skill of the art having the teaching of Sedlar and Perttunen at the time the invention was made to modify the system of Sedlar to include the limitations as taught by Perttunen.

One of ordinary skill in the art would be motivated to make this combination in order to determine a depth-first search of a tree having an optimum value associated with items related by the tree in view of Perttunen, as doing so would give the added benefit of improving methods of organizing information more efficiently as taught by Perttunen *(col. 1, line 55 to col. 2, line 19)*.

As to claims 4, 13, Sedlar teaches the relation indicates that the first directory is an immediate child of the second directory *(See Fig. 6)*.

As to claims 5, 14, Sedlar teaches assigning further comprises assigning the ID number while collection data *(i.e. an index entry for the Document directory is added to the hierarchical index, ... the Dir_Entry_List is updated to indicate that the new Document directory is a child of the Word directory, col. 22, lines 56-64)*.

As to claims 6, 15, Sedlar teaches writing data structure *(i.e. an index entry for the Document directory is added to the hierarchical index, ... the Dir_Entry_List is updated to indicate that the new Document directory is a child of the Word directory, col. 22, lines 56-64)* further comprises writing the data structure to a database server *(i.e. database server 204, col. 6, lines 54-61)*.

As to claims 7, 16, Sedlar teaches receiving a request to determine the parent of the first directory *(i.e. the pathname resolution process for locating a file within an emulated file system begins by locating the index entry 508 of the root directory 610 (step 800), col. 8, line 56 to col. 9, line 9)*; and

referencing the relation between the first directory and the second directory of the data structure to determine the parent of the first directory *(i.e. the pathname resolution process for locating a file within an emulated file system begins by locating the index entry 508 of the root directory 610 (step 800). Because all pathname resolution operations begin by accessing the root directory's index entry 508, data that indicates the location of the index entry for the root directory 610 (index entry 508) may be maintained at a convenient location outside of the hierarchical index 510 in order to quickly locate the index entry 508 of the root directory at the start of every search, col. 8, line 56 to col. 9, line 9).*

As to claims 8, 17, Sedlar teaches receiving a request to determine an immediate child of the second directory *(i.e. Consulting the Dir_entry_list of index entry 512, the system searches for the next filename in the input pathname (steps 804 and 806). In the present example, the filename "Word" follows the filename "Windows" in the input pathname, col. 9, line 56 to col. 10, line 7);*

searching the data structure to find any relation, including the relation between the first directory and the second directory, which indicates that the second directory is a parent in said relation *(i.e. the system searches the Dir_entry_list of index entry 512 for an array entry for "Word", col. 9, line 56 to col. 10, line 7);* and

determine the immediate child of the second directory based on said any relation *(i.e. Since Word directory 616 is just part of the specified path and not the target, files table 710 is not consulted. Instead, the system uses the RowID (Y3) to locate the index entry 514 for Word directory 616 (step 824), col. 9, line 56 to col. 10, line 7).*

As to claims 9, 18, Sedlar teaches receiving a request to determine a set of ID number of every child of a third directory in the directory structure, wherein the third directory is assigned a third ID number *(See Figs. 11-12);*

determining fourth ID number of a sibling of the third directory*(See Figs. 11-12);* and

determining the set of ID number between the third ID number and the fourth ID number *(See Figs. 11-12).*

9. Claims 19, 21, 23, 33, 34, 36, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuge et al. (US Patent No. 7,120,757), in view of Perttunen et al. (US Patent No. 6,563,521).

As per claim 19, Tsuge teaches an apparatus comprising:

a server having a mass storage device *(i.e. auxiliary storage owned by a plurality of computers and all shared files are subjected to a centralized management in the NAS equipment, also the NAS equipment performs the registration of policy information, etc. to the storage management integrated server as is the case with other computers, col. 4, lines 6-24);*

an agent *(i.e. the storage management integrated servers, col. 3, lines 17-25)* couple to the server, the agent to collect information regarding directories stored on the mass storage

device *(i.e. location information of files which are recorded in the share disk volumes provided by respective computers are also stored, col. 3, lines 17-24)* and to assign identification (ID) numbers *(i.e. Computer ID, col. 9, lines 36-65)*, wherein the information at least indicates relations among the directories *(i.e. The directory structure data 322 is configured, as shown in FIG. 5, in a tree structure, wherein a root directory 600 is defined to be a root, directories other than the root directory are intermediate nodes, and file information 620 are to be leaves. In the root directory 600, the directories 610 and the file information 620, their own directories or file properties (for example, a date of initial creation, a date of recent update, access rights, accessible user groups, etc.) are recorded, col. 10, lines 51-67); and*

a database server *(i.e. Data Structure Used for Storage Management Integrated System, col. 9, lines 29-65)* coupled to the server and the agent to store the information and the ID numbers *(i.e. The computer policy table 321 includes, as shown in FIG. 4, a computer ID 410, a computer IP address 420, policy information 430 of the computer, available space 440, and a computer's present accessibility state 450, col. 9, lines 29-65).*

Tsuge does not specifically teach a DFS manner to the directories.

Perttunen teaches a DFS manner to the directories *(i.e. Items related by a tree are further organized by determining a depth-first search of the tree having an optimum value associated therewith. ... Examples of an item include, but are not limited to a computer address, a computer site, a Web page, audio content, an image, computer software, an information category, an information subcategory, an information source, a logical disk for a computer, a computer directory, a computer-readable file, computer-readable data, a computer-readable message, a computer-readable description and/or image of a physical object, a computer-readable*

description and/or image of a purchasable item, a general category, and a general subcategory. Of particular interest are computer-readable items in a markup language such as HTML (hypertext markup language), HDML (handheld device markup language), or WML (wireless markup language). Also of interest are computer-readable messages such as those from either USENET or a Web page which provides an on-line discussion forum, col. 1, line 55 to col. 2, line 19).

It would have been obvious to one of ordinary skill of the art having the teaching of Tsuge and Perttunen at the time the invention was made to modify the system of Tsuge to include a DFS manner to the directories as taught by Perttunen.

One of ordinary skill in the art would be motivated to make this combination in order to determine a depth-first search of a tree having an optimum value associated with items related by the tree in view of Perttunen, as doing so would give the added benefit of improving methods of organizing information more efficiently as taught by Perttunen *(col. 1, line 55 to col. 2, line 19).*

As per claim 33, Tsuge teaches a method for creating a file information database comprising:

scanning a storage server *(i.e. an auxiliary storage, col. 15, lines 18-31)* having a directory structure *(i.e. the use of the storage management integrated system according to the present invention to achieve an integrated management of shared disk volumes provided by respective computers available on a network including the NAS equipment by using a storage management integrated server enables a user to perform file accessing without being aware of which shared disk volume the user is now accessing, col. 4, lines 43-52);*

collecting data regarding the directory structure and regarding files stored on the storage server *(i.e. auxiliary storage owned by a plurality of computers and all shared files are subjected to a centralized management in the NAS equipment, also the NAS equipment performs the registration of policy information, etc. to the storage management integrated server as is the case with other computers, col. 4, lines 6-24)* using an agent *(i.e. the storage management integrated servers, col. 3, lines 17-25)*, wherein the directory structure indicates a plurality of relations among a plurality of directories *(i.e. FIG. 5 is a structural diagram illustrating a form of a directory structure data 322 for the file management according to the first embodiment of the present invention, col. 10, lines 46-48);*

assigning an identification (ID) number *(i.e. Computer ID, col. 9, lines 36-65)* to a directory of the plurality of directories *(i.e. location information of files which are recorded in the share disk volumes provided by respective computers are also stored, col. 3, lines 17-24)* while collecting the data; and

writing a table including the ID number and the data *(i.e. The computer policy table 321 includes, as shown in FIG. 4, a computer ID 410, a computer IP address 420, policy information 430 of the computer, available space 440, and a computer's present accessibility state 450, col. 9, lines 29-65).*

Tsuge does not specifically teach a dept first search (DFS) order.

Perttunen teaches a dept first search (DFS) order *(i.e. Items related by a tree are further organized by determining a depth-first search of the tree having an optimum value associated therewith. ... Examples of an item include, but are not limited to a computer address, a computer site, a Web page, audio content, an image, computer software, an information category, an*

information subcategory, an information source, a logical disk for a computer, a computer directory, a computer-readable file, computer-readable data, a computer-readable message, a computer-readable description and/or image of a physical object, a computer-readable description and/or image of a purchasable item, a general category, and a general subcategory. Of particular interest are computer-readable items in a markup language such as HTML (hypertext markup language), HDML (handheld device markup language), or WML (wireless markup language). Also of interest are computer-readable messages such as those from either USENET or a Web page which provides an on-line discussion forum, col. 1, line 55 to col. 2, line 19).

It would have been obvious to one of ordinary skill of the art having the teaching of Tsuge and Perttunen at the time the invention was made to modify the system of Tsuge to include the limitations as taught by Perttunen.

One of ordinary skill in the art would be motivated to make this combination in order to determine a depth-first search of a tree having an optimum value associated with items related by the tree in view of Perttunen, as doing so would give the added benefit of improving methods of organizing information more efficiently, as taught by Perttunen *(col. 1, line 55 to col. 2, line 19).*

As per claim 21, Tsuge teaches the server *(i.e. an auxiliary storage 1020, col. 15, lines 18-31)* and the agent *(i.e. the integrated server 100, col. 3, lines 17-25)* user different file systems *(See Fig. 10).*

As per claim 23, Tsuge teaches the information is stored in a data structure *(col. 9, lines 29-65).*

As per claim 34, Tsuge teaches the agent *(i.e. the storage management integrated servers, col. 3, lines 17-25)* is separate from the storage server *(i.e. an auxiliary storage, col. 15, lines 18-31).*

As per claim 36, Tsuge teaches the storage server is a filer *(i.e. an auxiliary storage ... it is not always necessary that all files written via the proxy access computer 1010 in question should be recorded, col. 15, lines 18-31).*

As per claim 37, Tsuge teaches the storage server has first file system *(i.e. an auxiliary storage 1020, col. 15, lines 18-31)* and the agent has a second file system *(i.e. the storage management integrated servers, col. 3, lines 17-25)* different form the first file system *((See Fig. 10).*

10. Claims 2, 3, 11, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sedlar et al. (US Patent No. 6,922,708), in view of Perttunen et al. (US Patent No. 6,563,521), and further in view of Tsuge et al. (US Patent No. 7,120,757).

As to claims 2, 11, Sedlar, Perttunen do not specifically teach scanning and collecting comprise scanning and collecting by using an agent separate from the storage server.

Tsuge teaches scanning and collecting comprise scanning and collecting by using an agent separate *(i.e. the storage management integrated servers, col. 3, lines 17-25)* from the storage server *(i.e. an auxiliary storage, col. 15, lines 18-31)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Sedlar, Perttunen, and Tsuge at the time the invention was made to modify the system of Sedlar and Perttunen to include scanning and collecting comprise scanning and collecting by using an agent separate from the storage server as taught by Tsuge.

One of ordinary skill in the art would be motivated to make this combination in order to record location information of files in view of Tsuge *(col. 3, lines 17-25)*, as doing so would give the added benefit of enabling the file sharing to be easily performed without making users bother in setting-up or operations of computers located on the other side when they are to make an arrangement to define operating conditions in accessing to the shared disks and are to perform file sharing, as taught by Tsuge *(col. 2, line 59 to col. 3, line 2)*.

As to claims 3, 12, Tsuge teaches the agent has a first file system *(i.e. the integrated server 100, col. 3, lines 17-25)*, and the storage server has a second file system *(i.e. an auxiliary storage 1020, col. 15, lines 18-31)*, and wherein the first file system is different from the second file system *(See Fig. 10)*.

11. Claims 20, 22, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuge et al. (US Patent No. 7,120,757), in view of Perttunen et al. (US Patent No. 6,563,521), and further in view of Sedlar (US Patent No. 6,922,708).

As per claim 20, Tsuge, Perttunen does not specifically teach the server is a file server.

Sedlar teaches the server is a file server *(i.e. database file server 408, Fig. 4; The DB file server 408 is responsible for translating DB file API commands to database commands. The DB file API commands received by DB file server 408 may come from the protocol server layer of translation engine 308, or directly from applications (e.g. application 410) specifically designed to perform file operations by issuing calls through the DB file API (col. 14, lines 44-51).*

It would have been obvious to one of ordinary skill of the art having the teaching of Tsuge, Perttunen and Sedlar at the time the invention was made to modify the system of Tsuge, Perttunen to include the limitations as taught by Sedlar.

One of ordinary skill in the art would be motivated to make this combination in order to translate DB file API commands to database commands in view of Sedlar *(col. 14, lines 44-51)*, as doing so would give the added benefit of obtaining the process of accessing the items based on their pathnames that is significantly accelerated, and the number of disk accesses performed during that process is significantly reduced, as taught by Sedlar *(col. 7, lines 22-29).*

As per claim 22, Tsuge teaches the apparatus of claim 21, wherein the agent uses the other of the CIFS and NFS *(i.e. the integrated server 100, col. 3, lines 17-25)*

Tsuge, Perttunen does not specifically teach the server uses one of a common internet file system (CIFS) and a network file system (NFS).

Sedlar teaches the server using a network file system (NFS) *(i.e. a single operating system may provide native support for one or more of network file protocols (SMB, FTP, NFS), col. 15, line 63 to col. 16, line 9).*

It would have been obvious to one of ordinary skill of the art having the teaching of Tsuge, Perttunen and Sedlar at the time the invention was made to modify the system of Tsuge, Perttunen to include the server uses one of a common internet file system (CIFS) and a network file system (NFS) as taught by Sedlar.

One of ordinary skill in the art would be motivated to make this combination in order to translate DB file API commands to database commands in view of Sedlar *(col. 14, lines 44-51)*, as doing so would give the added benefit of obtaining the process of accessing the items based on their pathnames that is significantly accelerated, and the number of disk accesses performed during that process is significantly reduced, as taught by Sedlar *(col. 7, lines 22-29)*.

As to claims 24, Tsuge, Perttunen does not specifically teach the data structure includes a first columns to store an ID numbers of the first directory, a second column to store an ID number of a parent of the first directory, a size of the first directory, a creation time of the first directory, and a name of the first directory.

Sedlar teaches the data structure includes a first columns to store an ID numbers of the first directory, a second column to store an ID number of a parent of the first directory *(i.e. Hierarchical index 510 is a table. The RowID column contains system generated Ids, col. 7, lines 46-53; Fig. 5, 7, 10, 11)*, a size of the first directory, a creation time of the first directory, and a name of the first directory *(i.e. store in the "creation date" column of the row a value that indicates the current date, and (3) store in the "last modify" column a value that indicates the current date and time, and (4) store in the "size" column a value that indicates the size of the BLOB, col. 11, lines 8-30; Fig. 5, 7, 10, 11)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Tsuge, Perttunen and Sedlar at the time the invention was made to modify the system of Tsuge, Perttunen to include the limitations as taught by Sedlar.

One of ordinary skill in the art would be motivated to make this combination in order to translate DB file API commands to database commands in view of Sedlar *(col. 14, lines 44-51)*, as doing so would give the added benefit of obtaining the process of accessing the items based on their pathnames that is significantly accelerated, and the number of disk accesses performed during that process is significantly reduced, as taught by Sedlar *(col. 7, lines 22-29)*.

12. Claims 35, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuge et al. (US Patent No. 7,120,757), in view of Perttunen et al. (US Patent No. 6,563,521), and further in view of Toyoshima et al. (US Patent No. 6,298,349).

As per claim 35, Tsuge, Perttunen does not specifically teach using an MMA to control the agent.

Toyoshima teaches using an MMA to control the agent *(i.e. a plurality of application GUIs 228, col. 6, line 61 to col. 7, line 9)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Tsuge, Perttunen and Toyoshima at the time the invention was made to modify the system of Tsuge, Perttunen to include the limitations as taught by Toyoshima.

One of ordinary skill in the art would be motivated to make this combination in order to display data input from the database access module and information of the managed devices in view of Toyoshima *(col. 6, line 61 to col. 7, line 9)*, as doing so would give the added benefit of

controlling the personnel-organization database (PO-DB) 26 and the system management database (SM-DB) 24 separately or in an interlocked manner as taught by Toyoshima *(col. 7, lines 10-22).*

As per claim 38, Tsuge, Perttunen does not specifically teach generating a GUI using the MMA.

Toyoshima teaches generating a GUI using the MMA *(i.e. Application GUI group 228).*

It would have been obvious to one of ordinary skill of the art having the teaching of Tsuge, Perttunen and Toyoshima at the time the invention was made to modify the system of Tsuge, Perttunen to include generating a GUI using the MMA as taught by Toyoshima.

One of ordinary skill in the art would be motivated to make this combination in order to display data input from the database access module and information of the managed devices in view of Toyoshima *(col. 6, line 61 to col. 7, line 9)*, as doing so would give the added benefit of controlling the personnel-organization database (PO-DB) 26 and the system management database (SM-DB) 24 separately or in an interlocked manner as taught by Toyoshima *(col. 7, lines 10-22).*

Response to Arguments

13. Applicant's arguments filed 05/07/2007 with regards to claim 28 have been fully considered but they are not persuasive.

a). Applicant argues that: Mauldin teaches a queue of files, not a directory queue.

The examiner disagrees, Mauldin teaches a directory queue in col. 5, lines 4-20, as *File 24 similarly has a pointer, identified as "http://host2.com/docA.html", to another file, file 26, referred to as "docA.html".*

It should be understood that file 24 includes a pointer to another file, file 26, therefore, the file 24 is a directory of the file 26.

Mauldin teaches a first directory as "file 30 is downloaded and it is learned that file", col. 5, lines 44-56. It is noted that file 30 includes pointers to another files as files 32-35, therefore, the file 30 could be interpreted as a directory to accessing the files 32-35 (See col. 5, lines 44-56).

Further, Mauldin teaches a first directory as a top a directory queue as "*the **file** 80 had the highest ranking score of the all the addresses in the randomly selected section of the queue 51 being examined*", See col. 7, lines 37-47.

b). Applicant argues that: Mauldin does not teach determining a first subset of files and a second subset of directories.

On the contrary, Mauldin teaches this limitation in col. 5, lines 29-42, in view of Figures 5A and 5B. *In FIG. 5B, a depth first search is illustrated. In FIG. 5B, again file 30 is downloaded and it is learned that file 30 has pointers to files 32-35. However, when file 32 is downloaded, it is learned that file 32 has pointers to files 37, 38, 39, and 40. Before files 33 or 38 are downloaded, file 37 is downloaded. When file 37 is downloaded, it is learned that it has **two pointers to files 42 and 43. Before file 43 is downloaded, file 42 is downloaded to determine if it has any a pointers to any files**. The process is carried out until a file is reached*

which has no pointers. It is thus seen that the depth first search is the opposite of the breadth first search in that a catalog of files may be built in a column-like hierarchy.

Note that:

The fist subset of files equates to ***file 42***.

The second subset of directories equates to *pointers to file 43.*

c). Applicant argues that: Mauldin does not teach placing the second subset on the top of the directory queue.

In contrast, the file 43 is downloaded before the file 42 *(i.e. Before file 43 is downloaded, file 42 is downloaded, col. 4, lines 29-42),* this is interpreted that the pointer to file 43 is placed on the top of the directory queue.

The knowledge that is within the level of one of ordinary skill is highlighted hereinabove for the Applicant's convenience. The Examiner believes that the Applicants have failed to determine the level of ordinary skill as taught by Mauldin.

14. Applicant's arguments regarding the prior arts do not suggest the features of the amended claims 1-27, 33-38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Miranda Le
July 20, 2007

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